

# Quiz 3

Name: \_\_\_\_\_ student ID: \_\_\_\_\_.

## Question I:

(a) Classify the following second order PDE in three variables  $u_{xx} + 2u_{yy} + u_{zz} - u_{yx} - u_{zy} = u_{xy} + u_{yz}$ .

(b) Solve  $2u_{xx} + 5u_{xy} + 2u_{yy} = 0$ , where  $u(0, t) = 1, u_x(0, t) = t$ .